



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/604,632	06/27/2000	Hirokazu Nagasawa	450100-02579	3984

20999 7590 11/20/2003

FROMMER LAWRENCE & HAUG  
745 FIFTH AVENUE- 10TH FL.  
NEW YORK, NY 10151

EXAMINER

PEYTON, TAMMARA R

ART UNIT	PAPER NUMBER
----------	--------------

2182

DATE MAILED: 11/20/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

3

**Office Action Summary**

Application No.

09/604,632

Applicant(s)

NAGASAWA ET AL.

Examiner

Tammara R Peyton

Art Unit

2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-4 and 6-9 are rejected under 35 U.S.C. 102(e) as being anticipated by *Hanson et al.*, (US 6,460,094).

As per claims 1 and 6, *Hanson* teaches a signal input and output apparatus for issuing a control signal from a signal processor (202, Fig.5) to the outside (PS/2 or USB port) by one of a plurality of controllers (204, 206, Fig.5) through a transmission path, and controlling said signal processor by one of said plurality of controllers on the basis of a control signal entered from the outside, comprising:

a single transmission path (input/output pin 214, Fig.5) along which a plurality of different types of apparatuses (PS2 port or USB port) can be connected, each of said different types of apparatuses issuing a different type of control signal (col. 8, lines 31-34) and receiving control signals from a corresponding one of said plurality of controllers (PS/2 or USB controllers); and

signal discrimination changeover means (205, Fig.5) for discriminating the type of control signal entered through the single transmission path corresponding to one of said different types of apparatuses, generating a discrimination signal, supplying said discrimination signal into the signal processor controller, and selecting one of said plurality of controllers corresponding to said discriminated control signal to control operation of the signal processor controller, wherein

input and output of plural control signals of different types are processed through said single transmission path, said single transmission path supporting two-way communication of said plural control signals. (Abstract, col. 8, lines 16-col. 9, lines 1-20)

*Hanson* teaches a peripheral device having a single transmission path that may be connected to either a PS/2 port or a USB port. The peripheral device includes a USB controller, a PS/2 controller, microcontroller, and a connection type component (205) that determines which port type the peripheral device is connected. When attached to an unknown port the connection type component examines the levels of certain signal pins and determines whether the PS/2 or USB controller should be selected based on the received signals from the outside.

As per claims 2 and 7, *Hanson* teaches wherein the plural control signals each have different input and output levels.

As per claims 3 and 8, *Hanson* teaches wherein discrimination of the type of control signals in said signal discrimination changeover means is carried out on the basis of a level of the control signal at a coupling to said signal discrimination changeover means of the transmission path for an input and output of control signals.  
(col. 8, lines 44-col. 9 lines 2)

As per claims 4 and 9, *Hanson* teaches wherein said signal discrimination changeover means changes over the control system of the control signal of a type other than the one discriminated according to the discrimination signal so as to be inactive.  
(col. 8, lines 44-col. 9 lines 2)

Claims 1-4 and 6-9 are rejected under 35 U.S.C. 102(e) as being anticipated by *Emmert et al.*, (US 6,334,160).

As per claims 1 and 6, *Emmert* teaches a signal input and output apparatus for issuing a control signal from a signal processor (ASIC 100, Figs.1 and 5) to the outside (1284 or USB port) by one of a plurality of controllers (130, 140, Figs. 1and 5) through a

Art Unit: 2182

transmission path, and controlling said signal processor by one of said plurality of controllers on the basis of a control signal entered from the outside, comprising:

a single transmission path (connector 110, Figs. 1 and 5) along which a plurality of different types of apparatuses (1284 port or USB adapter port) can be connected, each of said different types of apparatuses issuing a different type of control signal (col. 8, lines 31-34) and receiving control signals from a corresponding one of said plurality of controllers (PS/2 or USB block controllers); and

signal discrimination changeover means (120, Fig.5) for discriminating the type of control signal entered through the single transmission path corresponding to one of said different types of apparatuses, generating a discrimination signal, supplying said discrimination signal into the signal processor controller, and selecting one of said plurality of controllers corresponding to said discriminated control signal to control operation of the signal processor controller, (col. 3, lines 40-col. 4, lines 1-15) wherein

input and output of plural control signals of different types are processed through said single transmission path, said single transmission path supporting two-way communication of said plural control signals. (Abstract, col. 2, lines 5-35 and col. 3, lines 2-col. 5, lines 1-5)

*Emmert* teaches a peripheral device that may be connected to a 1284 port or a USB adapter port through a single transmission path. A signal processor controller (120, Fig.5) detects specific signals from the connector (110, Fig.2) and depending on the signal detected a control block associated with the received signal is selected. For

Art Unit: 2182

example, if a specific signal is sensed than it is a USB signal and a USB control block is selected. However, if the specific signal is not sensed than 1284 control block is selected.

As per claims 2 and 7, *Emmert* teaches wherein the plural control signals each have different input and output levels.

As per claims 3 and 8, *Emmert* teaches wherein discrimination of the type of control signals in said signal discrimination changeover means is carried out on the basis of a level of the control signal at a coupling to said signal discrimination changeover means of the transmission path for an input and output of control signals.  
(col. 8, lines 44-col. 9 lines 2)

As per claim 4 and 9, *Emmert* teaches wherein said signal discrimination changeover means changes over the control system of the control signal of a type other than the one discriminated according to the discrimination signal so as to be inactive.  
(col. 8, lines 44-col. 9 lines 2)

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2182

Claims 1-4 and 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by *Jolley et al.*, (US 5,32,244).

As per claims 1 and 6, *Jolley* teaches a signal input and output apparatus for issuing a control signal from a signal processor (12, Fig.1) to the outside (SCSI or parallel bus types) by one of a plurality of controllers (Interface Adapter 1-N, Fig. 1) through a transmission path, and controlling said signal processor by one of said plurality of controllers on the basis of a control signal entered from the outside, comprising:

a single transmission path (connector 20, Fig. 1) along which a plurality of different types of apparatuses (SCSI or parallel bus types, col. 2, lines 43-45) can be connected, each of said different types of apparatuses issuing a different type of control signal and receiving control signals from a corresponding one of said plurality of controllers (Interface Adapter 1-N); and

signal discrimination changeover means (22, Fig.1) for discriminating the type of control signal entered through the single transmission path corresponding to one of said different types of apparatuses, generating a discrimination signal, supplying said discrimination signal into the signal processor controller, and selecting one of said plurality of controllers corresponding to said discriminated control signal to control operation of the signal processor controller, wherein



input and output of plural control signals of different types are processed through said single transmission path, said single transmission path supporting two-way communication of said plural control signals. (Abstract, col. 2, lines 35 - col.22)

*Jolley* teaches a peripheral device that may be connected to a plurality of bus types through a single transmission path. The peripheral device includes an I/O controller, a plurality of Interface Adapters, and an Interface bus detection circuit that will compare received signals levels to a reference potential in order to determine which Interface Adapter should be selected based on the type of received signals.

As per claims 2 and 7, *Jolley* teaches wherein the plural control signals each have different input and output levels.

As per claims 3 and 8, *Jolley* teaches wherein discrimination of the type of control signals in said signal discrimination changeover means is carried out on the basis of a level of the control signal at a coupling to said signal discrimination changeover means of the transmission path for an input and output of control signals.

As per claim 4 and 9, *Jolley* teaches wherein said signal discrimination changeover means changes over the control system of the control signal of a type other than the one discriminated according to the discrimination signal so as to be inactive.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Hanson et al.*, (US 6,460,094).

As per claims 5 and 10, *Hanson* does not teach wherein one of the plural control signals is an RS-232C signal. However, *Hanson* discusses wherein RS232 as being a common well-known serial interface. (col. 1, lines 17-25) In this system implementation *Hanson* teaches using the well-known USB serial interface. It would have been obvious to one of ordinary skill that it would not be out of the scope of *Hanson's* invention to be implemented utilizing a host of other serial signals and not depart from the inventive concept. Doing so would add and expand the flexibility of *Hanson's* signal input and output apparatus.

Art Unit: 2182

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammara Peyton whose telephone number is (703) 306-5508. The examiner can normally be reached between 6:30 - 4:00 from Monday to Thursday, (I am off every first Friday), and 6:30-3:00 every second Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin, can be reached on (703) 308-3301. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3718. Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Mailed responses to this action should be sent to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231.

Faxes for Official/formal (After Final) communications or for informal or draft communications (please label "PROPOSED" or "DRAFT") sent to:

(703) 872-9306

Hand-delivered responses should be brought to:

USTPO, 2011 South Clark Place, Customer Window  
Crystal Plaza Two, Lobby Room 1B03, Arlington, VA, 22202Crystal Park II, 2121.



Tammara Peyton

November 17, 2003